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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,839	06/20/2001	Andrew Witkowski	50277-1546	6253

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EXAMINER

WOO, ISAAC M

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 10/27/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,839

Applicant(s)

WITKOWSKI ET AL.

Examiner

Isaac M Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 41-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 41-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 7, 8, 12 and 18 are amended, and claims 21-40 are canceled preliminarily. Pending claims are 1-20 and 41-60.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, line 4, the phrase "as if" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 and 41-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki Kanzunobu (Japanese Publication No. 11-161656, hereinafter, "Sasaki") in view of Miller et al (U.S. Patent No. 6,615,241, hereinafter, "Miller").

With respect to claims 1, 7, 9, 10, 12 and 13, Sasaki discloses, the method for performing a database query operation, receiving, at a database server (page 5, section [0021], lines 1-5), a database query (SQL) that specifies an operation for manipulating data, see (page 7, section [0036], lines 1-4); reference data in a relational structure (page 2, section [0009], lines 1-5, page 1, section [0003], lines 1-12, the data was stored in a multi-dimensional array (page 2, section [0009], lines 1-14, database table has the format of row and column ,which is multi-dimensional array); in response to receiving the database query, the database server executing the query by performing, see (by the sql, page 4, section [0019], lines 1-18); retrieving a first set of data from a first relational structure, see (page 4, section [0019], lines 1-18, page 5, section [0022], lines 1-18); storing the first set of data in a structure that can be addressed as a multi-dimensional array (spreadsheet), see (data is stored in record medium, page 1, section [0002], lines 1-12, page 4, section [0019], lines 1-10, page 5, section [0022], lines 1-18), and performing the first set of data by performing the operation specified in the database query on the data, see (page 5, section [0022], lines 1-18, page 5, section

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[0025], lines 1-12, extraction condition input function with database query performing based on condition input). Sasaki discloses the storing the first data set in a data structure of spreadsheet, see (page 4, section [0019], lines 1-18). Sasaki does not explicitly disclose the storing the first data set in a data "non-relational structure". However, Miller discloses the spreadsheet is one of a non-relational data structure, see (col. 3, lines 54-66). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to include the non-relational structure as taught in Miller in the system of Sasaki to store data in non-relational data structure. Because management of relational database requires understanding of syntax of SQL sentence, which is not easy for users. Spreadsheet provides easy manipulation of data management for users.

With respect to claims 2 and 17-18, Sasaki discloses, the storing the first set of data in a structure that can be symbolically addressed as an n-dimensional array (spreadsheet), see (page 2, section [0009]).

With respect to claim 3, Sasaki discloses, presenting (displaying) in tabular format results from performing the operation, see (page 2, section [0009], lines 1-6).

With respect to claim 4, Sasaki discloses, automatically reordering the specified operations to allow the operation to be correctly performed on the data stored in the

non-relational structure, see (page 10, section [0058], lines 1-7, page 4, section [0019], lines 1-18).

With respect to claim 5, Sasaki discloses, aggregating over a set of data information contained in multiple cells of the non-relational structure (spreadsheet includes multiple cells), see (page 2, section [0009], lines 1-6).

With respect to claims 6, 11 and 20, Sasaki discloses, repeatedly performing a series of manipulations on the data until a particular criterion is satisfied, see (page 7, section [0037], lines 1-18).

With respect to claim 8, Sasaki discloses, receiving a database query that specifies a multi-dimensional array operation, see (page 7, section [0037], lines 1-18).

With respect to claim 14, Sasaki discloses, retrieving the first set of data from one or more tables within the relational database, see (page 4, section [0019], lines 1-18, page 5, section [0022], lines 1-18).

With respect to claims 15-16, Sasaki discloses, storing the first set of data within a non-relational spreadsheet application, see (page 2, section [0009], lines 1-10, page 4, section [0019], lines 1-18, page 5, section [0022], lines 1-18).

With respect to claim 19, Sasaki discloses, after performing the step of manipulating the first set of data, storing in a second relational structure, result information based on performance of the operation, see (page 2, section [0009], lines 1-10, page 4, section [0019], lines 1-18, page 5, section [0022], lines 1-18).

Claims 41-60 are computer-readable medium claims which are identical previous claims 1-20, are rejected on grounds corresponding to the reasons given above in claims 1-20.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tortolani et al (U.S. Patent No. 6,317,750) discloses the system for one type of user interface that improves on the basic, generally ill-suited interfaces accompanying multidimensional databases in recent years is one that utilizes widely recognized computer spreadsheet formats. A spreadsheet is used as a query tool to the multidimensional database. Many end-users using computers in a business environment and even those not in a business setting are more or less familiar with the concept of cells making up rows and columns in a spreadsheet format. Spreadsheet applications such as Excel.TM. from Microsoft Corporation of Redmond, Wash. and Lotus 1-2-3.TM. of IBM Corporation of Armonk, N.Y. are used widely in the business world and have been prevalent in the software market for nearly two decades. The user

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interface and format of such spreadsheet programs are very familiar to most business end-users, many of whom are potential users of multidimensional databases which store and organize the data displayed in the spreadsheet programs.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

IMW
October 20, 2003


SHAHID ALAM
PRIMARY EXAMINER